

ABSTRACT OF THE DISCLOSURE

A first Josephson junction in a Single Flux Quantum circuit (SFQ circuit) and a second Josephson junction in an interface circuit (latch driver circuit) are formed with junction materials different from each other, and the junction materials are selected so that the hysteresis of the first Josephson junction in a current-voltage characteristic is smaller than the hysteresis of the second Josephson junction in a current-voltage characteristic.